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EXAMINER	
MURRAY, DANIEL C	
ART UNIT	**PAPER NUMBER**
2443	

NOTIFICATION DATE	DELIVERY MODE
11/26/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No.	Applicant(s)	
	10/616,051	OMAE ET AL.	
	Examiner	Art Unit	
	DANIEL C. MURRAY	2443	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 September 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. **Claim 16** is objected to because of the following informalities:

- Claim 16 line 8, replace "storing" after "address stored in the" with --node storage unit--. It is assumed for Examination purposes that "storing" is referring the node storage unit as it is unclear to what "storing" is referring.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. **Claims 1-4 and 15-16** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 1-4 and 15-16 contain new subject matter, "new" service node. The specification discloses "A node search method for searching for a service node for providing a service to a mobile node…". Nowhere in the specification is there an indication of whether the service node being searched for is "new" or a definition for would qualify a service node as being "new".

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. **Claims 1-15** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Okanoue (US Patent # 5,179,861**) in view of **Haas (US Patent # US 6,304,556 B1)** and in further view of **Iyer et al. (US Patent #US 7,058,706 B1).**

a) Consider **claim 1,** Okanoue clearly shows and discloses, a new node search method for searching for a service node for providing a service to a node (column 1 lines 54-63), in a communication system including a plurality of service nodes (figure 1, abstract, column 2 lines 18-24, column 3 lines 40-46) and the node, each of the service nodes and the mobile node having a node storage unit configured to store addresses of service nodes (figure 2, figure 7, column 1 lines 23-24 lines 27-31, column 4 lines 48-50, column 5 lines 56-60), the node search method comprising: transmitting a node search packet to search for the new service node from a search node (abstract, column 1 lines 64-67, column 2 lines 24-26), which searches for the new service node, to a search packet reception node having an address stored in the node storage unit of the search node (figure 4a, abstract, column 1 lines 28-31, column 4 lines 4-8 lines 48-56, column 5 lines 56-67); transmitting a node notice request packet from the search packet reception node to a peripheral node having an address stored in the node storage unit of the search packet reception node (figure 8, abstract, column 1 lines 58-67, column 2 lines 1-9, lines 18-35, column 4 lines 4 -13), the address of the peripheral node not being stored in the node storage unit of the search node (column 4 lines 4-13); returning a node notice packet from the search packet reception node to the search node, in response to the node search packet (abstract, column 1 line 67, column 2 lines 1-8 lines 29-35); transmitting the node notice packet from the peripheral node to the search node, in response to the node notice request packet (figure 8, abstract, column 1 lines 58-67, column 2 lines 1-9 lines 18-35); detecting the new service node on based on the returned node notice packet from the peripheral node, by the search node (abstract, column 2 lines 5-17, lines 18-35); and updating the node storage

unit of the search node based on the new service node detected by the search node (figure 7, column 6 lines 13-17 lines 21-32). However, Okanoue does not specifically disclose a mobile communication system or mobile nodes or transmitting data for investigating node information from the search node to the detected new service node, the data for investigating node information including a request for a delay value and a number of hops in a packet transmission between the search node and the detected new service node.

Haas shows and discloses two network protocols, which are particularly suitable for self-reconfigurable communications networks, such as ad-hoc networks (mobile communication system)(abstract, column 1 lines 23-25 lines 66-67, column 8 lines 22-24). More particularly, the first protocol is instrumental in efficiently finding routes within a network, while the second protocol can be used to locate users (mobile nodes)(column 1 lines 23-25 lines 66-67, column 8 lines 22-24) in a network with rapidly changing topology.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Haas into the system of Okanoue for the purpose of mobility management (abstract, column 3 lines 47-51), efficiently finding routes within a network, and locating users in a network with rapidly changing topology (abstract, column1 lines 7-13). However, Okanoue as modified by Haas does not specifically disclose transmitting data for investigating node information from the search node to the detected new service node, the data for investigating node information including a request for a delay value and a number of hops in a packet transmission between the search node and the detected new service node.

Iyer et al. show and disclose determining a dynamic hop count and latency between two nodes across a network in a computer environment and transmitting to the detected service node, by the search node, data for investigating node information concerning the detected service node, the

data for investigating node information including a request for a delay value and a number of hops in a packet transmission between the search node and the detected service node (abstract, column 1 lines 65-67, column 2 lines 1-5 lines 9-27).

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate the teachings of Iyer et al. into the system of Okanoue for the purpose of determining the number of hops and latency between two nodes.

b) Consider **claim 2,** Okanoue clearly shows and discloses, a node comprising: a node storage unit configured to store addresses of service nodes for providing a service to a node (figure 2, figure 7, column 1 lines 23-24 lines 27-31, column 4 lines 48-50, column 5 lines 56-60); a search packet creation unit configured to create a node search packet to search for a new service node (figure 4a, abstract, column 1 lines 64-67, column 2 lines 24-26, column 4 lines 48-56, column 5 lines 56-67); a communication unit configured to transmit the node search packet to a search packet reception node having an address stored in the node storage unit (figure 4a, abstract, column 1 lines 28-31, column 4 lines 4-8 lines 48-56, column 5 lines 56-67), to receive a node notice packet from the search packet reception node (figure 8, abstract column 1 lines 58-67, column 2 lines 1-9, lines 18-35, column 4 -13) and to receive the node notice packet from a peripheral node which receives a node notice request packet from the search packet reception node (figure 8, abstract, column 1 lines 58-67, column 2 lines 1-9, lines 18-35, column 4 lines 4 -13), an address of the peripheral node not being stored in the node storage unit (column 4 lines 4-13); a detection unit configured to detect the new service node based on the node notice packet returned from the peripheral node (abstract, column 2 lines 5-17, lines 31-35); and an update unit configured to update the node storage unit based on the new service node detected by the detection unit (figure 7, column 6 lines 13-17 lines 21-32). However, Okanoue does not specifically disclose a mobile node or that the communication

unit is configured to transmit, to the detected new service node, data for investigating node information including a request for a delay value and a number of hops in a packet transmission between the search node and the detected new service node.

Haas shows and discloses two network protocols, which are particularly suitable for self-reconfigurable communications networks, such as ad-hoc networks. More particularly, the first protocol is instrumental in efficiently finding routes within a network, while the second protocol can be used to locate users (mobile nodes)(column 1 lines 23-25 lines 66-67, column 8 lines 22-24) in a network with rapidly changing topology.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Haas into the system of Okanoue for the purpose of mobility management (abstract, column 3 lines 47-51), efficiently finding routes within a network, and locating users in a network with rapidly changing topology (abstract, column1 lines 7-13). However, Okanoue as modified by Haas does not specifically disclose the communication unit is configured to transmit, to the detected new service node, data for investigating node information including a request for a delay value and a number of hops in a packet transmission between the search node and the detected new service node.

Iyer et al. show and disclose determining a dynamic hop count and latency between two nodes across a network in a computer environment wherein the communication unit is configured to transmit, to the detected service node, data for investigating node information concerning the detected service node, the data for investigating node information including a request for a delay value and a number of hops in a packet transmission between the search node and the detected service node (abstract, column 1 lines 65-67, column 2 lines 1-5 lines 9-27).

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate the teachings of Iyer et al. into the system of Okanoue for the purpose of determining the number of hops and latency between two nodes.

c) Consider **claim 3,** and **as applied to claim 2 above,** Okanoue as modified by Haas and as further modified by Iyer et al. clearly show and disclose, the node of claim 2, further comprising: a data creation unit configured to create the data for investigating node information detected by the detection unit, the data being transmitted to the detected new service node (column 6 lines 13-20), wherein the node storage unit is configured to store the node information (figure 2, figure 7, column 1 lines 23-24 lines 27-31, column 4 lines 48-50, column 5 lines 56-67, column 6 lines 13-17 lines 21-32), the communication unit is configured to transmit the data created by the data creation unit, and to receive response data returned in response to the data by the detected new service node (column 1 lines 23-25 lines 66-67, column 8 lines 22-24), and the update unit is configured to update the node storage unit based on the returned response data (figure 7, column 6 lines 13-17 lines 21-32).

d) Consider **claim 4,** and **as applied to claim 2 above,** Okanoue as modified by Haas and as further modified by Iyer et al. clearly show and disclose, the node of claim 2, wherein node information concerning the new service node is included in the node notice packet, the node storage unit is configured to store the node information, and the update unit is configured to update the node storage unit based on the returned node notice packet (figure 2, figure 7, column 1 lines 23-24 lines 27-31, column 4 lines 48-50, column 5 lines 56-67, column 6 lines 13-17 lines 21-32).

e) Consider **claim 5,** and **as applied to claim 3 above,** Okanoue as modified by Haas and as further modified by Iyer et al. clearly show and disclose, the node of claim 3 or 4, wherein the node storage unit is configured to store the addresses of the service nodes and the node information

according to a predetermined criterion (figure 2, figure 7, column 1 lines 23-24 lines 27-31, column 4 lines 48-50, column 5 lines 56-60, column 6 lines 13-17 lines 21-32).

f) Consider **claim 6,** and **as applied to claim 4 above,** Okanoue as modified by Haas and as further modified by Iyer et al. clearly show and disclose, the node of claim 4, further comprising: a determination unit configured to determine inter-node information between the search node and the peripheral node according to inter-node information between the search node and the search packet reception node and inter-node information between the search packet reception node and the peripheral node based on the node notice packet (column 2 lines 5-16 lines 31-35), wherein the update unit is configured to update the node storage unit based on the inter-node information between the search node and the peripheral node determined by the determination unit (figure 7, column 6 lines 13-17 lines 21-32).

g) Consider **claim 7,** and **as applied to claim 2 above,** Okanoue as modified by Haas and as further modified by Iyer et al. clearly show and disclose, the node of claim 2, further comprising: a notice packet creation unit configured to create the node notice packet by accessing the node storage unit (figure 8, column 6 lines 36-58), wherein the communication unit is configured to transmit the node notice packet created by the notice packet creation unit (column 1 lines 23-25 lines 66-67, column 8 lines 22-24).

h) Consider **claim 8,** and **as applied to claim 7 above,** Okanoue as modified by Haas and as further modified by Iyer et al. clearly show and disclose, the node of claim 7, wherein the notice packet creation unit is configured to create the node notice packet that is passed through the peripheral node (abstract, column 1 line 67, column 2 lines 1-5 lines 32-35).

i) Consider **claim 9,** and **as applied to claim 7 above,** Okanoue as modified by Haas and as further modified by Iyer et al. clearly show and disclose, the node of claim 7, wherein the notice

packet creation unit is configured to create the node notice packet when the communication unit has received at least one of the node search packet, the node notice packet, and a node notice request packet for requesting return of the node notice packet (figure 8, column 6 lines 36-58).

j) Consider **claim 10,** and **as applied to claim 2 above,** Okanoue as modified by Haas and as further modified by Iyer et al. clearly show and disclose, the node of claim 2, further comprising: a request packet creation unit configured to create the node notice request packet for requesting the peripheral node to return the node notice packet (figure 4a, column 5 lines 18-24, column 6 lines 1-20), wherein the communication unit is configured to transmit the node notice request packet created by the request packet creation unit (column 1 lines 23-25 lines 66-67, column 8 lines 22-24).

k) Consider **claim 11,** and **as applied to claim 10 above,** Okanoue as modified by Haas and as further modified by Iyer et al. clearly show and disclose, the node of claim 10, wherein the request packet creation unit is configured to create the node notice request packet when the communication unit has received at least one of the node search packet, the node notice packet, or the node notice request packet (figure 8, column 6 lines 35-58).

l) Consider **claim 12,** and **as applied to claim 2 above,** Okanoue as modified by Haas and as further modified by Iyer et al. clearly show and disclose, the node of claim 2, further comprising: a request packet creation unit configured to create a node registration request packet for requesting registration in the node storage unit of another service node (figure 7, column 6 lines 7-17), wherein the communication unit is configured to transmit the node registration request packet created by the request packet creation unit (column 1 lines 23-25 lines 66-67, column 8 lines 22-24).

m) Consider **claim 13,** and **as applied to claim 2 above,** Okanoue as modified by Haas and as further modified by Iyer et al. clearly show and disclose, the node of claim 2, wherein the communication unit is configured to receive a node registration request packet for requesting

registration in the node storage unit of another service node (column 1 lines 23-25 lines 66-67, column 8 lines 22-24), and the update unit is configured to update the node storage unit based on the node registration request packet (figure 7, column 6 lines 13-17, lines 21-23).

n) Consider **claim 14,** and **as applied to claim 2 above,** Okanoue as modified by Haas and as further modified by Iyer et al. clearly show and disclose, the node of claim 2, However, Okanoue does not specifically disclose a selection criterion holding unit configured to hold a selection criterion for selecting a service node to be used; and a selection unit configured to access the node storage unit and select the service node to be used, based on the selection criterion held in the selection criterion holding unit.

Haas shows and discloses a selection criterion holding unit (memory) configured to hold a selection criterion for selecting a service node to be used (node location and route information); and a selection unit (processor) configured to access the node storage unit and select the service node to be used, based on the selection criterion held in the selection criterion holding unit (column 6 lines 58-65).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Haas into the system of Okanoue for the purpose of efficiently finding routes within a network, and locating users in a network with rapidly changing topology (abstract, column1 lines 7-13).

o) Consider **claim 15,** Okanoue clearly shows and discloses, a communication system comprising: a search node configured to search for a new service node for providing a service to a node by transmitting a node search packet in order to search for the new service node (abstract, column 1 lines 64-67, column 2 lines 24-26); a search packet reception node configured to receive the node search packet transmitted from the search node (figure 2, column 4 line 66 column 5 lines

1-2); and a peripheral node other than the search packet reception node (abstract, column 1 line 67, column 2 lines 1-5 lines 32-35), wherein the search node includes: a node storage unit configured to store addresses of service nodes (figure 2, figure 7, column 1 lines 23-24 lines 27-31, column 4 lines 48-50, column 5 lines 56-60); a search packet creation unit configured to create the node search packet to search for the new service node (figure 4a, abstract, column 1 lines 64-67, column 2 lines 24-26, column 4 lines 48-56, column 5 lines 56-67); a communication unit configured to transmit the node search packet to the search packet reception node (figure 2, column 4 line 66 column 5 lines 1-2) having an address stored in the node storage unit (figure 4a, abstract, column 1 lines 28-31, column 4 lines 4-8 lines 48-56, column 5 lines 56-67), to receive a node notice packet from the search packet reception node (figure 8, abstract column 1 lines 58-67, column 2 lines 1-9, lines 18-35, column 4 lines 4 -13), and to receive the node notice packet from a peripheral node which receives a node notice request packet from the search packet reception node (figure 8, abstract, column 1 lines 58-67, column 2 lines 1-9, lines 18-35, column 4 lines 4-13), and address of the peripheral node not being stored in the node storage unit (column 4 lines 4-13); a detection unit configured to detect the new service node based on the node notice packet returned from the peripheral node (abstract, column 2 lines 5-17, lines 31-35); and an update unit configured to update the node storage unit based on the new service node detected by the detection unit (figure 7, column 6 lines 13-17 lines 21-32). However, Okanoue does not specifically disclose a mobile communication system or mobile nodes or that the communication unit is configured to transmit, to the new detected service node, data for investigating node information including a request for a delay value and a number of hops in a packet transmission between the new search node and the detected service node.

Haas shows and discloses two network protocols, which are particularly suitable for self-reconfigurable communications networks, such as ad-hoc networks (mobile communication system)(abstract, column 1 lines 23-25 lines 66-67, column 8 lines 22-24). More particularly, the first protocol is instrumental in efficiently finding routes within a network, while the second protocol can be used to locate users (mobile nodes)(column 1 lines 23-25 lines 66-67, column 8 lines 22-24) in a network with rapidly changing topology.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Haas into the system of Okanoue for the purpose of mobility management (abstract, column 3 lines 47-51), efficiently finding routes within a network, and locating users in a network with rapidly changing topology (abstract, column1 lines 7-13). However, Okanoue as modified by Haas does not specifically disclose that the communication unit is configured to transmit, to the detected service node, data for investigating node information concerning the detected service node, the data for investigating node information including a request for a delay value and a number of hops in a packet transmission between the search node and the detected service node.

Iyer et al. show and disclose determining a dynamic hop count and latency between two nodes across a network in a computer environment wherein the communication unit is configured to transmit, to the detected service node, data for investigating node information concerning the detected service node, the data for investigating node information including a request for a delay value and a number of hops in a packet transmission between the search node and the detected service node (abstract, column 1 lines 65-67, column 2 lines 1-5 lines 9-27).

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate the teachings of Iyer et al. into the system of Okanoue for the purpose of determining the number of hops and latency between two nodes.

7. **Claims 16** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Okanoue (US Patent # 5,179,861**) in view of **Iyer et al. (US Patent #US 7,058,706 B1).**

a) Consider **claim 16**, Okanoue clearly shows and discloses, a computer-readable storage medium, including computer executable instructions, wherein the instructions, when executed by a processor, cause the processor to function as a node and to perform a method, comprising: storing addresses of service nodes for providing a service to a mobile node (figure 2, figure 7, column 1 lines 23-24 lines 27-31, column 4 lines 48-50, column 5 lines 56-60); creating a node search packet to search for a new service node (figure 4a, abstract, column 1 lines 64-67, column 2 lines 24-26, column 4 lines 48-56, column 5 lines 56-67); transmitting the node search packet to a search packet reception node having and address stored in the storing (figure 4a, abstract, column 1 lines 28-31, column 4 lines 4-8 lines 48-56, column 5 lines 56-67); receiving the node notice packet from the search packet reception node; receiving the node notice packet from a peripheral node which receives a node notice request packet from the search packet reception node (figure 8, abstract, column 1 lines 58-67, column 2 lines 1-9, lines 18-35, column 4 lines 4 -13), and address of the peripheral node not being stored in he node storage unit (column 4 lines 4-13); detecting the new service node based on the node notice packet returned from the peripheral node (abstract, column 2 lines 5-17, lines 31-35); updating the addresses based on the detected new service node (figure 7, column 6 lines 13-17 lines 21-32). However, Okanoue does not specifically disclose transmitting to the detected new service node, by the search node, data for investigating node information including

a request for a delay value and a number of hops in a packet transmission between the search node and the new detected service node.

Iyer et al. show and disclose determining a dynamic hop count and latency between two nodes across a network in a computer environment and transmitting to the detected new service node, by the search node, data for investigating node information including a request for a delay value and a number of hops in a packet transmission between the search node and the new detected service node (abstract, column 1 lines 65-67, column 2 lines 1-5 lines 9-27).

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate the teachings of Iyer et al. into the system of Okanoue for the purpose of determining the number of hops and latency between two nodes.

Response to Arguments

8. Applicant's arguments filed 10SEP2008 have been fully considered but they are not persuasive.

Applicant argues Okanoue fails to disclose "transmitting a node notice request packet from the search packet reception node to a peripheral node having an address stored in the node storage unit of the search packet reception node, the address of the peripheral node not being stored in the node storage unit of the search node; and transmitting the node notice packet from the peripheral node to the search node, in response to the node notice request packet." and "detecting the new service node based on the returned node notice packet from the peripheral node…".

The Examiner respectfully disagrees; Okanoue clearly discloses transmitting a node notice request packet from the search packet reception node to a peripheral node having an address stored in the node storage unit of the search packet reception node (figure 8, abstract, column 1 lines 58-

67, column 2 lines 1-9, lines 18-35, column 4 lines 4 -13). The address request (node notice request) is send from the source node (search packet reception node) to the (destination node) peripheral node and the address of the destination node (peripheral node) is stored in the address table of the source node (search packet reception node). It is clear that they source node transmits an address request to a destination node based on an address stored in the source node's address table.

Okanoue clearly discloses the address of the peripheral node not being stored in the node storage unit of the search node (column 4 lines 4-13). The search node receives a management message (node notice request) and checks the address table for the destination ID (address of the peripheral node) when the search node fails to find the destination ID in the address table it sends out a request to all adjacent nodes to search for the destination ID. It is clear that the address of the destination (peripheral) node is not in the node storage unit (address table) of the search node.

Okanoue clearly discloses transmitting the node notice packet from the peripheral node to the search node, in response to the node notice request packet (figure 8, abstract, column 1 lines 58-67, column 2 lines 1-9, lines 18-35, column 4 lines 4-13). It is clearly shown that once the destination node (peripheral node) itself receives the address request (node notice request)(figure 8 steps 801, 802) that the destination node (peripheral node) sends a response (node notice packet)(figure 8 step 806)back to the source (search node). It is clear that once the destination node receives an address request is send a response back to the source node.

Okanoue clearly discloses detecting the new service node based on the node notice packet returned from the peripheral node (abstract, column 2 lines 5-17 lines 31-35). It is clear that the new service node (destination node) is detected based on the response (node notice packet) returned by the destination node (peripheral node). It is clear that when the response signal is received the source node determines (i.e. detects) the location of the destination node.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL C. MURRAY whose telephone number is 571-270-1773. The examiner can normally be reached on Monday - Friday 0800-1700 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tonia Dollinger can be reached on (571)-272-4170. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/DCM/
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